Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Part 97 of the Commission's	)	**RM-10787**
Amateur Service Rules to Eliminate	)	
Morse code testing	)	
	)	

To: The Commission

COMMENT

1. I urge the Commission to reject the Petition for Rulemaking RM-10787, which was submitted by the National Conference of Volunteer Examiner Coordinators (NCVEC) by Frederick O. Maia.

2. The ARRL-VEC[1] is the largest of the fourteen organizations participating in the NCVEC. The ARRL-VEC abstained from voting and therefore RM-10787 does not represent a consensus. The ARRL has not polled its members on this issue.

3. Morse code remains essential to the Amateur Radio Service to fulfill its *Basis and Purpose* as delineated under §97.1 of the rules of the Federal Communications Commission, 47 CFR.

§97.1 Basis and purpose.

The rules and regulations in this Part are designed to provide an amateur radio service having a fundamental purpose as expressed in the following principles:

(a) Recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications.

(b) Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art.

(c) Encouragement and improvement of the amateur service through rules which provide for advancing skills in both the communications and technical phases of the art.

(d) Expansion of the existing reservoir within the amateur radio service of trained operators, technicians, and electronics experts.

[1] The American Radio Relay League Volunteer Examination Coordinator (ARRL-VEC) is sponsored by the American Radio Relay League (ARRL), 225 Main St., Newington, CT 06111

(e) Continuation and extension of the amateur's unique ability to enhance international goodwill.

3. The Amateur Radio Service is a voluntary, non-commercial communication service. Licensees devote untold hours of volunteer service to train and provide communications during time of need (e.g. natural disasters). When phone lines are down, licensees provide the means and manpower to pass health, welfare and emergency traffic. Under less than ideal conditions, often with makeshift equipment and antennas, *skilled* radio amateurs are charged with the important task of getting the message through. Morse code (CW) provides a 20 dB signal advantage over single sideband (SSB) telephony (voice). In other words, when voice transmissions are no longer possible, licensees trained in the use of Morse code can easily switch from voice to radio-telegraphy to pass the traffic. When all else fails, Morse code can get the message across, provided there are those trained to copy code.

4. There are other efficient digital modes that offer similar signal enhancements over SSB (voice) and other inefficient wideband modes. However, these modes can not be decoded by ear and therefore require additional equipment. This equipment is not easily setup under field conditions. This equipment also requires additional electrical power capacity, which would limit operating time when using emergency power off of commercial mains. Further, all commercially manufactured Amateur Radio HF transceivers come equipped for Morse code (CW) telegraphy. Very few (if any) HF transceivers come equipped for digital modes (e.g. RTTY, PSK31, etc.) without the addition of other equipment (e.g. computer, software, TNC, video monitor, etc.).

5. There are many transceiver kits on the market or available through non-commercial amateur radio clubs. These kits and/or designs are a valuable means for developing a practical, hands-on knowledge of radio electronics. Transceiver kits capable of voice modes have proven to be less successful due to their cost, complexity and availability. These are the building blocks for a cadre of *trained operators, technicians, and electronics experts*.

6. A Morse code proficiency requirement for HF ensures that amateur radio licensees are skilled for service during emergencies. A 5-wpm Morse code proficiency requirement ensures that all radio amateurs licensed for high frequency operation will have a basic exposure to this skill. A proficiency of 5-wpm is merely the equivalent of memorizing the sounds of the characters. It is the most basic exposure possible to Morse code and this level of proficiency has been easily achieved by many licensees whose ages range from childhood to senior adults.

I. Introduction and Background

7. I was first licensed as an amateur radio operator in 1980. I currently hold an Amateur Extra class license and am a Volunteer Examiner (VE) with ARRL-VEC. I have served various leadership roles for local amateur radio clubs and have helped introduce amateur radio to hundreds of children and adults. I have taught Morse code in a classroom

setting and one-on-one. I currently run the on-air MAC Slow Speed Code Net[2] and a high-speed Morse code net for the Robert F. Heytow Memorial Radio Club[3]. I am a member of FISTS CW Club,[4] the Society of Midwest Contesters (SMC),[5] American Radio Relay League (ARRL),[6] and JARL A-1 Club.[7] I have built and repaired amateur radio equipment, earned numerous operating awards and have written articles for several amateur radio publications. I have no pecuniary interests in the amateur radio service.

8. The NCVEC argues that manual Morse telegraphy is no longer used or required in any radio service other than in the Amateur Radio Service. This is not accurate. The capability to send and receive Morse code is retained in the U.S. military service, is still being trained in military schools and is in use today in various military theaters throughout the world. "The performance standard for success is 13 code groups per minute. This would not be required or trained if it were not an absolute neccessity. Training time is at a premium and unneeded skills are not maintained as requirements for army specialties."[8]

II. Telegraphy Requirement in the Amateur Radio Service

9. The argument that CW is just another mode is innacurate. Morse code requires operator *skill* — this skill can not be faked as in Amateur Radio written test elements where the questions and answers are published.

10. Morse proficiency can not be tested with a written exam as in other modes. It is an *audible* language.

11. Morse proficiency requirements for licensure in the Amateur Radio Service are not an impediment to qualified individuals. This is evidenced by the many license upgrades that have recently occurred which included a Morse code exam.

12. A Morse code proficiency requirement is necessary for ARS licensing because many licensees would not otherwise make the commitment to learn this valuable skill. It requires a commitment to become a skilled communicator, not at all like memorizing questions and answers in a published pool.

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[2] Metro Amateur Radio Club (MAC), Lincolnwood, Illinois. Web site: http://www.qsl.net/mac
[3] Robert F. Heytow Memorial Radio Club, Skokie, Illinois. Web site: http://www.qsl.net/k9ya
[4] FISTS CW Club is an international, not-for-profit organization founded in 1987. Web site: http://www.fists.org
[5] Society of Midwest Contesters (SMC) a midwestern regional organization which promotes radiosport activities. Web site: http://www.w9smc.com
[6] American Radio Relay League (ARRL), 225 Main St., Newington, CT 06111. Web site: http://www.arrl.org
[7] Japan Amateur Radio League (JARL) A-1 Club. Web site: http://www.jarl.com/a1/
[8] G.I. Joe and Mr. Morse by Lt. Col. Bart J. Hill, K7LTC. August 2003, 73 Amateur Radio Today magazine, 70 Hancock Rd., Peterborough, NH 03458-1107.

III. Morse Code Testing

13. The Petitioner states that "personal computers can easily send and receive telegraphy." This is false. There is no better instrument to date than a human brain for decoding on-air Morse code signals. Computers are *not* good at separating multiple stations within a receiver's passband. Computers can *not* adjust for signal fading, less than perfect timing or varying speeds. A skilled amateur radio operator can easily use its brain to adjust for these variations.

14. The Petitioner states that the taking of a telegraphy exam is an "unneccessary burden upon the applicant that is more often than not a very stressful experience for the examinee." This argument is absurd; as licensees in the Amateur Radio Service, we are offered the privilege of operating because we provide a *service* to the nation. This service is very stressful when handling emergency communications via Amateur Radio. A driving test can also be stressful, but it is the only practical way to assess driver skill.

IV. Morse code Proficiency as an Incentive to Voice Modes

15. The petitoner states that "it makes no sense from a regulatory perspective to require radio amateurs to be Morse proficient when the greater majority of radio amateurs do not desire to use that mode and there is no regulatory reason for them to do so." While Mr. Maia has been dilligently pursuing an unskilled Amateur Radio Service, it is not in the Commission's best interest to do so. Personal Radio Services (e.g. Citizens Band, GMRS, FRS and MURS) are already available for non-technical/unskilled personal communications.

16. SSB telephony is the most popular mode in the ARS and CW (Morse code) is a close second. A Morse proficiency requirement for licensing should not be based on a popularity contest. Radio amateurs are given the many privileges they enjoy because they are skilled and fulfill a need. Take away their special communicator skills and the value of the ARS will be greatly diminished.

17. When SSB voice communications fail a skilled amateur radio operator can switch to CW and gain a 20 dB advantage. A Morse proficiency requirement should continue to be used as an inducement for innefficient wideband voice mode privileges.

V. The VEC System

18. The Petitioner states that the "administration of a CW (Morse code) examination imposes an unnecessary burden upon the VE teams." This argument is appauling and an embarrassment to the many volunteers who administer amateur radio exams. Volunteer Examiners participate in this program because they want to give something back. It relieves the Commission of that expense. No Volunteer Examiner on the team that I volunteer for and no Volunteer Examiner that I've spoken with consider it a burden to administer a Morse exam at a test session. Further, I have never read in any Amateur Radio publication or on any Internet newsgroup that it is a burden to administer a Morse code exam.

VI. The Amateur Radio Community

19. The petitoner claims that there would be more licensees if you took away the CW (Morse code) requirement. As previously discussed in these comments, the large amount of recent upgrades dispel this myth. Also, the ARS already has the Technician license which does not require a Morse code proficiency exam. The Technician license offers broad privileges, including the use of all amateur bands above 50 MHz without any mode restrictions. These privileges are earned by taking a 35-question written exam where the questions and answers are published. Children as young as six years old have passed this exam.

VII. Scare Tactics

20. The Petitioner is attempting to spin yarns of Morse code waivers and unnecessary burdens upon the FCC. Code waivers were once offered to qualified individuals when there were 13-wpm and 20-wpm proficiency requirements. The code waivers issued were to reasonably accommodate qualified individuals by reducing the requirement to 5-wpm which is the current requirement.

21. The Courage HANDI-HAM System[9] Web site has a poll on whether or not to retain a Morse proficiency requirement for amateur licensing. As of September 27, 2003, the majority of those polled favor the retention of a Morse requirement to maintain standards. The Courage HANDI-HAM System is an organization for amateur radio operators with severe physical disabilities.

22. While the ITU might have dropped their Morse code proficiency requirement, they clearly left the choice to individual administrations.

> *"Administrations shall determine whether or not a person seeking a license to operate an amateur radio station shall demonstrate the ability to send and receive texts in Morse code signals."*

VIII. Conclusion

23. The NCVEC petition fails to make a case for removing telegraphy exams.

24. The Amateur Radio Service must remain a skilled, technical service — not become another Personal Radio Service.

25. The ability to send and receive Morse code can mean the difference between life and death. CW (Morse code) provides a 20 dB advantage over SSB telephony (voice). A skilled operator can switch from voice to CW and get the message through when all else fails.

26. It is beneficial to the Amateur Radio Service to retain a Morse code proficiency requirement as an inducement for additional privileges.

[9] http://www.handiham.org

27. The Basis and Purpose of the ARS clearly defines the obligations of the Amateur Radio Service with respect to providing emergency communications. The ability to send and receive Morse code is a vital part of providing emergency communications — when all else fails.

28. I urge the Commission to REJECT the NCVEC Petition in its entirety.

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September 27, 2003